

ABSTRACT OF THE DISCLOSURE

The magnetic composite material of the present invention is used as a working substance in the magnetic refrigeration system and comprising at least two phases, including, a first phase composed of an intermetallic compound represented by a general formula: $\text{La}(\text{Fe}(\text{Co}, \text{Ni})\text{Si})_{13}$, having an NaZn_{13} type crystal structure, and a second phase is composed of an iron alloy containing Si. The first phase is precipitated in an expansion size of 100 μm or less in average. Preferably, the magnetic composite material contains Fe as a principal component, La in an amount from 4 atomic % to 12 atomic %, Si in an amount from 2 atomic % to 21 atomic %, and Co and Ni in a total amount from 0 atomic % to 11 atomic %, and the total amount of Fe, Co and Ni being from 75 atomic % to 92 atomic %.